Enhanced CABG is in Your Hands
**Intraoperative Graft Damage is the Principal Cause of Vein Graft Failure (VGF)**

The durability and patency of vein grafts are significantly compromised by Vein Graft Disease (VGD):
- The VGD process begins with endothelial damage that occurs during the grafting surgery itself.\(^{(1)}\)
- VGD encompasses the pathophysiological changes that occur in vein grafts following their use in surgical grafting.

**Endothelial Damage, Manifested Within Minutes as Pro-inflammatory and Pro-thrombogenic Changes Within the Graft, Leads to VGD and VGF**

As VGD progresses, vein grafts lose their ability to adapt to the post-grafting environment, leading to:
- Thrombus formation
- Intimal hyperplasia
- Atherosclerosis

These may result in:
- Graft stenosis
- Occlusion
- Loss of graft patency

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**Figure 1: Printed with permission from Elsevier\(^{(2)}\)**

VGD that progresses to VGF may result in myocardial infarction and the need for repeat revascularization. The success rate of revascularization or re-intervention of a failed graft is very poor\(^{(3)}\) and therefore addressing early vein graft disease in the primary graft is crucial.\(^{(1)}\)
Designed for Tissue Preservation

- DuraGraft® is an intraoperative vascular graft treatment that maintains endothelial function and structure, reducing the incidence and complications associated with graft failure thereby improving clinical outcomes.
- DuraGraft improves clinical outcomes by providing an environment which protects against intraoperative Ischemic Reperfusion Injury.
- DuraGraft is a clinically tested and approved treatment for preserving vascular grafts.

- **pH Balanced** - Heparinized saline and autologous blood are not pH balanced.

- **Stabilized Antioxidants** - Two potent antioxidants neutralize the reactive oxygen species that cause oxidative damage during ischemia (glutathione and ascorbic acid).

- **Ionically Balanced** - Critical in maintaining cell polarity, and membrane integrity.

- **Maintains the Viability and Health of the Graft Post-Grafting** - L-Arginine is included to support synthesis of nitric oxide during the ischemic period.

- **Supports Anaerobic Metabolism** - Contains components required to support anaerobic metabolism during ischemia thereby preventing the generation of metabolic stress lesions (glucose and high energy phosphates).
DuraGraft has been proven to reduce both graft level negative remodeling and clinical complications (MI, Repeat Revascularization and MACE) associated with VGF, with statistical significance.

**U.S. Retrospective Study**(4)
2,436 CABG Patients • DuraGraft Treatment vs Standard of Care

Significant reductions in long-term clinical events with DuraGraft (up to 15 years)

<table>
<thead>
<tr>
<th>Reduction in Myocardial Infarction Rates</th>
<th>Reduction in Repeat Revascularization Rates</th>
<th>Reduction in MACE Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unadjusted Analysis: 43% (p = &lt;0.0001)</td>
<td>Unadjusted Analysis: 31% (p = 0.002)</td>
<td>Unadjusted Analysis: 21% (p = &lt;0.0001)</td>
</tr>
<tr>
<td>IPW Adjusted: 45% (p = 0.0001)</td>
<td>IPW Adjusted: 35% (p = &lt;0.037)</td>
<td>IPW Adjusted: 19% (p = 0.005)</td>
</tr>
</tbody>
</table>

**Prospective, Randomized, Multi-Center Within-Patient Study**(5)
5 North American and 2 European Sites • Double-Blind, Comparative (Within-Person) DuraGraft Treatment vs Standard of Care • mITT Population • n=97

- Wall thickening is an expression of intimal hyperplasia – an early indicator of disease.
- DuraGraft treated grafts demonstrate significant reduction in wall thickening at 12 months in proportionate analyses of both whole and proximal segment of grafts.
- DuraGraft treated grafts also demonstrate significant reductions in both wall thickening and maximal (focal) luminal narrowing in longitudinal analyses of proximal segment of grafts from 1 to 12 months.

**Conclusions:**
Early disease is most pronounced in the proximal segment and DuraGraft mitigates early signals of graft disease.
In addition to being pH balanced and buffered, DuraGraft protects against the two main causes of Ischemic Reperfusion Injury (IRI) - Oxidative Damage and Metabolic Stress.

Limitations of Saline, Blood & Buffered Solutions

Saline, blood and buffered solutions are not preservation solutions and DO NOT protect against IRI.

<table>
<thead>
<tr>
<th>Property</th>
<th>Saline</th>
<th>Blood</th>
<th>Buffered Solutions</th>
<th>DuraGraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved for Indication</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✔</td>
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<tr>
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<td>Contains Pro-endothelial Components</td>
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<td>Designed to Prevent Inflammation and Pro-Coagulant Responses</td>
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<td>Preserves Vascular Endothelium</td>
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<tr>
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</tbody>
</table>
DuraGraft® is a Fully Protective Treatment Solution

DuraGraft is a vascular graft treatment that improves clinical outcomes by reducing the incidence and complications of graft failure.

DuraGraft enhances CABG outcomes by reducing major cardiac events such as repeat revascularization and myocardial infarction.

DuraGraft is clinically proven to reduce complications associated with VGF post-CABG.

DuraGraft is an approved treatment for preventing endothelial damage to vascular grafts.